Remarks

This communication is responsive to the Office Action mailed on May 4, 2005. Claims 1-26 are currently pending. Claim 20 has been cancelled. Claims 1, 16-18, 21 and 25 have been amended. The basis for amendments can be found in the specification as filed, for example, at p. 11, lines 20-23, p. 21, lines 4-7, p. 25, lines 7-19, and p. 26, line 29 – p. 27, line 9. Thus, no new matter has been added by these amendments. Reconsideration of the above-referenced application in view of the foregoing amendments and the following remarks is respectfully requested.

§ 103 Rejections

Claims 1-4, 6-12, and 18-26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over European Patent Application Publication No. 0487047 to Shingaki et al. ("Shingaki") in view of U.S. Patent No. 2,285,792 to Bailey ("Bailey"). Claims 16 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shingaki in view of Bailey. Claims 5 and 13-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shingaki in view of Bailey and further in view of U.S. Patent No. 5,986,730 to Hansen et al. ("Hansen"). The Applicants hereby traverse these rejections and respectfully submit that the amended claims are patentably distinguishable over Shingaki, Bailey and Hansen, because none of the cited references, alone or in combination, disclose or suggest all elements of any of the claims. For example, none of the cited references teach or suggest a film that includes a polarizer element and a separate polarization rotator element having the claimed characteristics that are integrated to form a single film.

In the May 4, 2005 Office Action, the Examiner again acknowledged that Shingaki does not contain an explicit teaching wherein said polarizer element and the separate polarization rotation element are integrated to form a single film. The Examiner then again turns to Bailey stating that it contains a "teaching of a polarizer element and a separate polarization rotation element being integrated to form a single film (cf. Fig. 2 of the instant invention and Figs. 1-3 of Bailey)."

The Applicants respectfully disagree and submit that Bailey neither discloses nor suggests the combination of a polarizer and a separate polarization rotation element as claimed in the present application. Instead, Bailey is directed to systems for changing eccentricity of elliptically polarized light, and, more particularly, for obtaining circularly polarized light from plane

polarized light and vice versa. (See, e.g., p. 1, col. 1, lines 14-18) and is not concerned with polarization rotation in the sense of the present application (see p. 3, col. 1, lines 35-44).

More particularly, Figs. 2 and 3 show "a plane polarizing screen 3 positioned adjacent to the polyamide sheet 4." The description specifies that the retardation of the polyamide sheet is "an eighth wave or multiple thereof for green light, and in the most valuable embodiment of the invention is one-forth wave in which case circularly polarized light is obtained for the green light by placing the axis of transmission of the plane polarizing screen at an angle of 45° to the principal optical axis of the doubly refracting polymer sheet." (Bailey, p. 3, col. 2, lines 67 – p. 4, col. 1, line 3). Due to the different refractive indices along different directions, the double refracting sheet introduces different phase components to the portions of light polarized along these two different directions, thus resulting in circular or elliptical polarization of the transmitted light. In contrast, the amended claims of the present application require that the polarization rotator element is "configured and arranged to rotate the polarization axis of the light transmitted by the polarizer element to align with another polarization axis that forms an angle of at least 5 degrees with respect to the polarization axis of the polarizer element."

The Applicants further submit that neither the cited references nor knowledge generally available to one of ordinary skill in the art would provide a suggestion or motivation to combine the cited references to arrive at the Applicants' invention with a reasonable expectation of success. In fact, the proposed combination of Shingaki and Bailey would render the prior art devices being modified unsatisfactory for their intended purpose. For example, contrary to the Examiner's assertions, attaching the polarizer (1) to the halfwave plate (5) would render the modified device unsatisfactory for its intended purpose, because the device of Shingaki requires physically rotating the halfwave plate in correlation with the temperature variations in the liquid crystal layer. If the halfwave plate (5) is immobilized with respect to the polarizer (1), the device could not compensate for temperature variations in the liquid crystal layer.

On the other hand, if the polyamide sheet of Bailey is replaced with a polarization rotator of the present disclosure, the construction of only those two elements could not convert plain polarized light into circularly polarized light and vice versa, which is the stated purpose of Bailey's invention. Instead, the polarization axis of the plain polarized light transmitted through the polarizer would be

merely rotated. Thus, one of ordinary skill in the art would not be motivated to combine the disclosures of Shingaki and Bailey.

Therefore, for at least the foregoing reasons, the Applicants submit that the amended claims 1-19 and 21-26 are patentable over the cited references and an office action acknowledging the same is respectfully requested. In view of the above, it is submitted that the application is in condition for allowance, which action is earnestly solicited. If after reviewing this amendment and response, should the Examiner have questions or require additional information, the Examiner is cordially invited to call the undersigned attorney.

Respectfully submitted,

July 5, 2005
Date

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